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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/761,173

01/20/2004

Leighton Randolph Spadone

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2079

27280

7590

07/25/2007

THE GOODYEAR TIRE & RUBBER COMPANY  
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EXAMINER

RONESI, VICKEY M

ART UNIT

PAPER NUMBER

1714

MAIL DATE

DELIVERY MODE

07/25/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/761,173	SPADONE ET AL.	
	Examiner	Art Unit	
	Vickey Ronesi	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 April 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 6-21 is/are pending in the application.
- 4a) Of the above claim(s) 6-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-14, 17, 20 and 21 is/are rejected.
- 7) ☒ Claim(s) 15, 16, 18 and 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 April 2007 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. All outstanding objections and rejections are withdrawn in light of applicant's amendment filed on 4/23/2007.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.
3. The new grounds of rejection set forth below are necessitated by applicant's amendment filed on 4/23/2007. In particular, claims 13-21 are new. Thus, the following action is properly made final.

### *Election/Restrictions*

4. Applicant's election of mixture containing Category (C) carbon black in the reply filed on 4/23/2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 6-10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 4/23/2007.

### *Claim Objections*

5. Claim 21 is objected to because in line 1, the term "which" is extraneous and should be deleted.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

6. Claims 11-13, 17, 20, and 21, are rejected under 35 U.S.C. 103(a) as being unpatentable over Midorikawa et al (JP 08-188672) in view of Sandstrom et al (US 6,220,323).

Pending a full English-language translation of Midorikawa et al, in setting forth this rejection, a machine translation has been relied upon.

Midorikawa et al discloses a rubber composition for a tread in a pneumatic tire comprising 100 phr diene rubber (paragraph 0006); 3-50 phr acetylene black which inherently has the properties of Category (B-2) because Category (B-2) is acetylene black (paragraph 0007); and 10-65 phr carbon black having a N<sub>2</sub>SA of 70 m<sup>2</sup>/g or higher and DBP of 80 ml/100 g or higher (e.g., carbon black of N<sub>2</sub>SA = 132 m<sup>2</sup>/g and DBP = 100 ml/100 mg; carbon black of N<sub>2</sub>SA = 92 m<sup>2</sup>/g and DBP = 101 ml/100 mg) (paragraph 0014), which reads on Category (C).

Midorikawa et al does not disclose a heavy tire with a specific tread thickness or silica, however, it teaches that its rubber composition is used in tire treads and that additives normally used in tire compositions are utilized (paragraph 0011).

Sandstrom et al discloses a rubber composition suitable for a passenger tire, aircraft tire, truck tire, and the like (col. 8, lines 8-18), wherein the composition contains diene rubbers like utilized by Midorikawa et al (col. 4, line 60 to col. 5, line 9) and silica added in amounts of 10-20 phr to endeavor to achieve a reduction of rebound values for a rubber composition intended for use as a tire tread (col. 3, line 60 to col. 4, line 3).

Given that Midorikawa et al teaches the use of its rubber composition in a tire tread and is open to conventional additives, it would have been obvious to one of ordinary skill in the art to utilize the rubber composition of Midorikawa et al with silica in any tire tread, including heavy

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tires like taught by Sandstrom et al, because one of ordinary skill in the art would appreciate that such a composition is useful in any tire tread application based on the teachings by Sandstrom et al regarding identical rubbers.

With respect to the thickness of the tread, it is the examiner's position that the thickness of a tread is a result effective variable because changing the thickness will clearly affect the type of product obtained. See MPEP § 2144.05 (B). Case law holds that "discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art." See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Specifically, a tire tread is designed with a to have thickness in order to maximize wear resistance and minimize weight.

In view of this, it would have been obvious to one of ordinary skill in the art to utilize appropriate tread thickness, including that within the scope of the present claims, so as to produce desired end results.

7. Claims 11, 13, 14, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNutt et al (US 2002/0111416) in view of Yahagi (US 4,683,928).

McNutt et al discloses a hard rubber composition for use in tires (paragraph 0015) and exemplifies a composition comprising butadiene and natural rubbers, Regal 85 (i.e., Category (A)) and N330 (i.e., Category (C)) in amounts like presently claimed (Tables I-III; paragraph 0015-0016). The composition optionally contains silica (paragraph 0013).

McNutt et al does not disclose the use of its composition in a tire tread of a heavy duty tire having a thickness of at least 4 centimeters.

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Yahagi discloses a pneumatic tire for heavy load vehicles and teaches that the treads of these tires require a hard rubber (abstract), wherein it is the examiner's position that the thickness of a tread is a result effective variable because changing the thickness will clearly affect the type of product obtained. See MPEP § 2144.05 (B). Case law holds that "discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art." See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Specifically, a tire tread is designed with a to have thickness in order to maximize wear resistance and minimize weight.

In view of this, it would have been obvious to one of ordinary skill in the art to utilize appropriate tread thickness, including that within the scope of the present claims, so as to produce desired end results.

Given that McNutt et al discloses a hard rubber composition and further given that Yahagi teaches that hard rubbers are used in the treads of heavy load vehicles, it would have been obvious to one of ordinary skill in the art to utilize the composition of McNutt et al in a pneumatic tire tread having a thickness of at least 4 centimeters.

8. Claims 12 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNutt et al (US 2002/0111416) in view of Yahagi (US 4,683,928) and further in view of Sandstrom et al (US 6,220,323).

The discussion with respect to McNutt et al and Yahagi in paragraph 7 above is incorporated here by reference.

McNutt et al fails to disclose the amount of silica.

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Sandstrom et al discloses a rubber composition suitable for a passenger tire, aircraft tire, truck tire, and the like (col. 8, lines 8-18), wherein the composition contains diene rubbers like utilized by McNutt et al (col. 4, line 60 to col. 5, line 9) and silica added in amounts of 10-20 phr to endeavor to achieve a reduction of rebound values for a rubber composition intended for use as a tire tread (col. 3, line 60 to col. 4, line 3).

Given that McNutt et al is open to the use of additives such as silica and further given the suitable amounts taught by Sandstrom et al, it would have been obvious to one of ordinary skill in the art to utilize silica in amounts of 10-20 phr in the tire tread of McNutt et al and Yahagi.

#### ***Allowable Subject Matter***

9. Claims 15, 16, 18, and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: none of the closet prior art discloses or suggests the use of a Category (C) carbon black with a Catetgory (B-1) carbon black or with both Category (A) and Category (B-2) carbon blacks in a tread for a heavy duty pneumatic tire.

#### ***Response to Arguments***

10. Applicant's arguments filed 4/23/2007 have been fully considered but they are not persuasive. Specifically, applicant argues that Midorikawa et al does not disclose a blend of carbon black (B-2) and carbon black (C).

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In response to the argument, Midorikawa et al discloses a rubber composition comprising 3-50 phr acetylene black which inherently has the properties of Category (B-2) because Category (B-2) is acetylene black as taught by applicant (paragraph 0007) and 10-65 phr carbon black having a  $N_2SA$  of  $70 \text{ m}^2/\text{g}$  or higher and DBP of  $80 \text{ ml}/100 \text{ g}$  or higher (e.g., carbon black of  $N_2SA = 132 \text{ m}^2/\text{g}$  and DBP =  $100 \text{ ml}/100 \text{ mg}$ ; carbon black of  $N_2SA = 92 \text{ m}^2/\text{g}$  and DBP =  $101 \text{ ml}/100 \text{ mg}$ ) (paragraph 0014), which reads on Category (C).

### *Conclusion*

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.



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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

7/23/2007

Vickey Ronesi



/Vasu Jagannathan/  
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